M.Sc. Physical Biology of Cells and Cell Interactions

Study Plan

**SEMESTER 1**
- patent right
- good sci. practice
- FELASA B
- molecular cloning
- cell culture
- western blot
- model systems
- light microscopy
- data analysis
- statistics
- TEM/SEM
- bioinformatics

**SEMESTER 2**
- advanced cell biology II (7 CP)
- current concepts in cell biology (15 CP)
- lab rotation II (11 CP)
- one out of 24
- advanced methods in cell biology (15 CP)
- lab rotation III (11 CP)
- one out of 24

**SEMESTER 3**
- project work on the theoretical principles of research conception

**SEMESTER 4**
- master project (30 CP)
- six months working on an own research project

Lab Rotations

- MSc-PBioC-12 Neurophysiology of sensory systems
- MSc-PBioC-13 Auditory function and dysfunction: behavior and physiology
- MSc-PBioC-14 Information processing in the central auditory system
- MSc-PBioC-16 Physiology and behavior
- MSc-PBioC-17 Three-dimensional cell cultures and three-dimensional microscopy
- MSc-PBioC-18 Three-dimensional developmental biology and three-dimensional microscopy
- MSc-PBioC-21 Plant cell biology
- MSc-PBioC-22 Fungal cell biology
- MSc-PBioC-23 Function and evolution of metabolic pathways
- MSc-PBioC-24 Special aspects of immunology
- MSc-PBioC-25 Developmental genetics
- MSc-PBioC-26 Cell biology and gene expression control
- MSc-PBioC-27 Endothelial cells and tumor cell biology
- MSc-PBioC-28 Principles of tube morphogenesis
- MSc-PBioC-29 Developmental cell biology
- MSc-PBioC-31 Biology of extracellular vesicles
- MSc-PBioC-32 Special aspects of tumor biology
- MSc-PBioC-33 Cellular RNA biology
- MSc-PBioC-34 Neuronal basis of acoustic communication in mammals
- MSc-PBioC-35 Cellular, molecular and systemic neurobiology in mouse and zebrafish
- MSc-PBioC-36 Basics of quantitative developmental biology – analysis of dynamic processes
- MSc-PBioC-37 Data analysis, mathematical modeling and simulation
- MSc-PBioC-38 Understanding the molecular mechanisms leading to Parkinson’s disease
- MSc-PBioC-39 Cellular and molecular mechanisms in neurodegenerative disorders

Master Coordination

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